

What Is Claimed:

1. A device for enabling network connectivity with a network service provider, the device comprising:
 - a wireless transceiver;
 - an antenna coupled to the wireless transceiver; and
 - a switch coupled to the wireless transceiver and to a wireline network, the switch exchanging data with the network service provider over the wireline network during normal operation and exchanging data with the network service provider via the wireless transceiver when connectivity is lost on the wireline network.
2. The device of claim 1, wherein the wireless transceiver is configured to relay data from other wireless transceivers that have lost connectivity to the wireline network.
3. The device of claim 2, wherein the wireless transceiver relays the data from the other wireless transceivers that have lost connectivity by forwarding data units received from the other wireless transceivers through the switch and to the wireline network.
4. The device of claim 2, wherein the switch includes an ad-hoc router.

5. The device of claim 1, wherein the device is physically located at a location of a subscriber of the network service provider.

6. The device of claim 1, wherein the wireless transceiver operates in accordance with IEEE 802.11 standards.

7. The device of claim 1, wherein the wireline network includes a fiber network.

8. The device of claim 1, wherein the wireline network includes coaxial cables.

9. The device of claim 1, wherein the switch monitors a failed connection state of the wireline network for renewed connectivity of the wireline network and resumes communication over the wireline network when the wireline connection is renewed.

10. A method performed by a network subscriber comprising:
establishing connectivity to a network service provider over a wireline connection;
monitoring the wireline connection for failure; and

automatically establishing a connection to the network service provider over a wireless connection relayed via one or more other network subscribers when the wireline connection fails.

11. The method of claim 10, wherein the wireless connection is established over an ad-hoc network formed via a plurality of network units.

12. The method of claim 11, wherein the wireless connection is established over multiple hops in the ad-hoc network.

13. The method of claim 10, wherein the wireless connection is formed in accordance with IEEE 802.11 standards.

14. The method of claim 10, wherein automatically establishing a connection to the network service provider includes wirelessly broadcasting a message requesting a relay to the network service provider by the one or more other network subscribers.

15. The method of claim 14, wherein automatically establishing a connection to the network service provider further includes authorizing the subscriber to use the network.

16. The method of claim 14, wherein the relaying one or more other network subscribers forward data received wirelessly from the network subscriber over a second wireless connection to the network service provider.

17. The method of claim 10, further comprising:
monitoring a failed connection state of the wireline connection for renewed connectivity of the wireline connection; and
disconnecting from the wireless connection when the wireline connection is renewed.

18. A method for providing fallback network connectivity to a network service provider comprising:
providing primary network connectivity over a wireline connection; and
providing backup network connectivity via a wireless network implemented over a plurality of network nodes located at residences of subscribers of the network service provider.

19. The method of claim 18, wherein the wireless network includes an ad-hoc network.

20. The method of claim 19, wherein the backup network connectivity is established over multiple hops in the ad-hoc network wireless network.

21. The method of claim 18, further comprising:
providing the backup network connectivity by relaying data to a first node in the wireless network that has an active wireline connection to the network service provider.

22. The method of claim 18, wherein the wireless network is formed in accordance with IEEE 802.11 wireless connectivity standards.

23. The method of claim 18, wherein providing the backup network connection includes authorizing a subscriber of the network with the network service provider.

24. The method of claim 18, further comprising:
providing the backup network connectivity in response to a failed connection state of the wireline connection.

25. The method of claim 24, further comprising:
monitoring the failed connection state of the wireline connection for renewed connectivity of the wireline connection; and
disconnecting from the backup network connectivity when the wireline connection is renewed.

26. The method of claim 18, wherein the network service provider provides Internet connectivity or telephony services.

27. The method of claim 18, wherein the wireline connection includes a fiber connection or a coaxial connection leading to a subscriber of the network service provider.

28. A network comprising:
wireline connections to a plurality of subscribers;
network interface units (NIUs) located at the plurality of subscribers, the NIUs each including:

a wireless transceiver configured to communicate with other NIUs;
and

a switch coupled to the wireless transceiver and to one of the wireline connections, the switch providing data from the one of the wireline connections to a corresponding subscriber of the network during normal operation of the one of the wireline connections and the switch providing data from the wireless transceiver to the corresponding subscriber of the network when connectivity on the one of the wireline connections fail.

29. The network of claim 28, wherein the NIUs form a wireless ad-hoc network.

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30. The network of claim 28, wherein the NIUs each additionally include:

an antenna coupled to the wireless transceiver.

31. The network of claim 28, wherein the wireless transceiver is configured to relay data from other wireless transceivers that have lost connectivity with the wireline connections.

32. The network of claim 31, wherein the wireless transceiver relays the data from the other wireless transceivers that have lost connectivity by forwarding data units received from the other wireless transceivers through the switch and to the wireline network.

33. A device comprising:
means for establishing connectivity to a network service provider over a wireline connection;
means for monitoring the wireline connection for failure; and
means for automatically establishing a connection to the network service provider over a wireless connection when the wireline connection fails.